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09/622,089	08/10/2000	Hiroki Nomoto	490042-87GS0	6664

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MINNEAPOLIS, MN 55402

EXAMINER
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NECKEL, ALEXA DOROSHENK

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/622,089

**Applicant(s)**

NOMOTO ET AL.

**Examiner**

Alexa D. Neckel

**Art Unit**

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 21, 2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each independent claim, claims 49-51, recite that at least one connecting hole is elevated from the floor at a height that is "one-quarter or less of said fluidized bed height". This is unclear since three beds of differing heights are recited and it is not known which bed height is being referred to in these limitations.

### ***Claims Analysis***

4. It is noted that claims 2-51 recite a "system" which is not a statutory category of invention. It has been determined that the claims are directed to an apparatus and the

Art Unit: 1764

appropriate principles for interpreting claims for that particular category of invention have been applied.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2-11, 15, 16 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Moss (4,517,162).

With respect to claims 49 and 3, Alliston et al. discloses an apparatus comprising:

a reaction vessel (10) which includes three compartments of three fluidized beds (B, A, C) bounded by a floor (30) and two partition plates (22 and 24);

wherein the third bed (C) height is lower than the height of the second bed (A) and the second bed (A) height is lower than that of the first bed (B) (see figure 1);

at least one connecting hole (42a and 42b) in each partition plate (22 and 24) elevated immediately above the floor (30) (see figure 4), therefore in the lower  $\frac{1}{4}$  of any of the three beds; and

an air distributor (30) (col. 3, lines 4-13).

Though Alliston et al. does not disclose the size of the connecting whole or the distance of the gas injecting nozzles from the connecting whole nor any particular sizes for any portion of the device, it is held that one of ordinary skill in the art would have found it *prima facie* obvious to arrive at an optimum or workable range of the size of a connecting hole as well as the connecting whole to nozzle distance by mere routine

Art Unit: 1764

experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”).

Additionally, change in size and shape is not patently distinct over the prior art absent persuasive evidence that the particular configuration of the claimed invention is significant. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

The air distributor (30) of Alliston et al. does not disclose any specific details as to openings or nozzles by which the air can flow through the distributor.

Moss also discloses a fluidized bed reactor with partitioned fluidized beds wherein the gas distributor comprises vertical nozzles (17 and 47). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the nozzles of Alliston et al. in the gas distributor of Alliston et al. since it is merely the selection of a suitable means by which to flow the fluidizing air through the distributor to the particulate bed.

With respect to claim 2, it can be seen in figures 1 and 4 that the lower surface of the connecting holes (42a and 42b) is located above the gas injection of the air distribution plate (30).

With respect to claims 4-11, 15 and 16, Alliston et al. fails to disclose specific details with regard to the connecting holes (42a and 42b).

Moss also discloses a fluidized bed reactor with partitioned fluidized beds and teaches an arrangement of connecting holes that improve the flow of particulate matter from bed to bed so that there is substantially no accumulation of particles at the opening (col. 2, lines 14-19). This arrangement comprises (as shown in figure 1 of Moss):

a lower surface portion (20, 25) of the connecting hole protrudes from both ends of the partition plate (11, 14);

that the upper surface of the protruding portion (20, 25) is obliquely cut;

connecting hole (19, 24) and its protruding portion (20, 25) are slanted downward from the upstream side toward the downstream side; and

that an angle of slant is greater than an angle of repose of the material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the connecting holes arrangement as disclosed by Moss in the apparatus of Alliston et al. in order to gain the flow advantages taught by Moss.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Moss (4,517,162) as applied to claim 49 above, and further in view of Butt (EP 0 144 172 A2).

Alliston et al., as modified above, discloses the apparatus as discussed with respect to claim 49 above, but does not disclose wherein an injecting nozzle is provided in the middle of the connecting hole.

Butt teaches a similar compartmentalized fluidized bed device wherein a gas injection nozzle (52, 54) is positioned in the middle of the connecting hole of a partition (4) (see fig. 3). It would have been obvious to one of ordinary skill in the art at the time

Art Unit: 1764

the invention was made to provide a gas injection nozzle in the middle of the connecting hole of a partition plate of modified Alliston et al. in the manner taught by Butt in order to provide improved fluidization and movement of the fluidized bed from compartment to compartment.

8. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Moss (4,517,162) in view of Butt (EP 0 144 172 A2) as applied to claim 12 above, and further in view of Voegeli (3,978,176).

The apparatus of modified Alliston et al. in view of Butt does not disclose the specific type of sparger/gas injection nozzle used.

Voegeli discloses a sparger made up of a porous material which can be used in a fluidized bed apparatus (col. 2, lines 5-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the particular sparger of Voegeli in the modified device of Alliston et al. as it is merely the selection of sparger/gas injection nozzles known to be effective in the art.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Moss (4,517,162) in view of Butt (EP 0 144 172 A2) as applied to claim 12 above, and further in view of Wietzke et al (6,029,612).

The apparatus of modified Alliston et al. in view of Butt does not disclose wherein the nozzle is obliquely bent from the upstream side toward the downstream side.

Wietzke et al. teaches a gas injection nozzle (42, 44) in the partition (41) of a fluidized bed wherein the nozzle is obliquely bent from the upstream side toward the downstream side in order to provide a solid flow seal and prevent particles from flowing

Art Unit: 1764

into the nozzle (col. 6, lines 6-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made provide an oblique bend from the upstream side toward the downstream side of the connecting hole of Alliston et al. in order to gain the advantages of a solid flow seal as taught by Wietzkie et al.

10. Claims 18, 19 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Asai et al. (4,460,330).

With respect to claims 50 and 19, Alliston et al. discloses an apparatus comprising:

a reaction vessel (10) which includes three compartments of three fluidized beds (B, A, C) bounded by a floor (30) and two partition plates (22 and 24);

wherein the third bed (C) height is lower than the height of the second bed (A) and the second bed (A) height is lower than that of the first bed (B) (see figure 1);

at least one connecting hole (42a and 42b) in each partition plate (22 and 24) elevated immediately above the floor (30) (see figure 4), therefore in the lower  $\frac{1}{4}$  of any of the three beds; and

an air distributor (30) (col. 3, lines 4-13).

Though Alliston et al. does not disclose the size of the connecting whole or the distance of the gas injecting nozzles from the connecting whole nor any particular sizes for any portion of the device, it is held that one of ordinary skill in the art would have found it *prima facie* obvious to arrive at an optimum or workable range of the size of a connecting hole as well as the connecting whole to nozzle distance by mere routine



Art Unit: 1764

experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”).

Additionally, change in size and shape is not patently distinct over the prior art absent persuasive evidence that the particular configuration of the claimed invention is significant. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

The air distributor (30) of Alliston et al. does not disclose any specific details as to openings or nozzles by which the air can flow through the distributor, including wherein the nozzles inject horizontally.

Asai et al. also teaches a fluidized bed device wherein the distribution nozzles inject gas horizontally into the bed (see figure 4) and that this design allows for higher temperatures to be reached in the bed and better mixing (col. 1, lines 27-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the nozzles of Asai et al. in the air distributor of Alliston et al. since it is merely the selection of a suitable means by which to flow the fluidizing air through the distributor to the particulate bed and in order to achieve the advantages taught by Asai et al.

Art Unit: 1764

With respect to claim 18, it can be seen in figures 1 and 4 that the lower surface of the connecting holes (42a and 42b) is located above the gas injection of the air distribution plate (30).

11. Claims 20-27, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Asai et al. (4,460,330), as applied to claim 50 above, and further in view of Moss (4,517,162).

With respect to claims 20-27, 31 and 32, Alliston et al., as modified above, fails to disclose specific details with regard to the connecting holes (42a and 42b).

Moss also discloses a fluidized bed reactor with partitioned fluidized beds and teaches an arrangement of connecting holes that improve the flow of particulate matter from bed to bed so that there is substantially no accumulation of particles at the opening (col. 2, lines 14-19). This arrangement comprises (as shown in figure 1 of Moss):

a lower surface portion (20, 25) of the connecting hole protrudes from both ends of the partition plate (11, 14);

that the upper surface of the protruding portion (20, 25) is obliquely cut;

connecting hole (19, 24) and its protruding portion (20, 25) are slanted downward from the upstream side toward the downstream side; and

that an angle of slant is greater than an angle of repose of the material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the connecting holes arrangement as disclosed by Moss in the modified apparatus of Alliston et al. in order to gain the flow advantages taught by Moss.

Art Unit: 1764

12. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Asai et al. (4,460,330) as applied to claim 50 above, and further in view of Butt (EP 0 144 172 A2).

Alliston et al., as modified above, discloses the apparatus as discussed with respect to claim 50 above, but does not disclose wherein an injecting nozzle is provided in the middle of the connecting hole.

Butt teaches a similar compartmentalized fluidized bed device wherein a gas injection nozzle (52, 54) is positioned in the middle of the connecting hole of a partition (4) (see fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a gas injection nozzle in the middle of the connecting hole of a partition plate of modified Alliston et al. in the manner taught by Butt in order to provide improved fluidization and movement of the fluidized bed from compartment to compartment.

13. Claim 29 rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Asai et al. (4,460,330) in view of Butt (EP 0 144 172 A2) as applied to claim 28 above, and further in view of Voegeli (3,978,176).

The apparatus of modified Alliston et al. in view of Butt does not disclose the specific type of sparger/gas injection nozzle used.

Voegeli discloses a sparger made up of a porous material which can be used in a fluidized bed apparatus (col. 2, lines 5-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the particular

Art Unit: 1764

sparger of Voegeli in the modified device of Alliston et al. as it is merely the selection of sparger/gas injection nozzles known to be effective in the art.

14. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of Asai et al. (4,460,330) in view of Butt (EP 0 144 172 A2) as applied to claim 28 above, and further in view of Wietzke et al (6,029,612).

The apparatus of modified Alliston et al. in view of Butt does not disclose wherein the nozzle is obliquely bent from the upstream side toward the downstream side.

Wietzke et al. teaches a gas injection nozzle (42, 44) in the partition (41) of a fluidized bed wherein the nozzle is obliquely bent from the upstream side toward the downstream side in order to provide a solid flow seal and prevent particles from flowing into the nozzle (col. 6, lines 6-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made provide an oblique bend from the upstream side toward the downstream side of the connecting hole of Alliston et al. in order to gain the advantages of a solid flow seal as taught by Wietzkie et al.

15. Claims 34, 35 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of DeFeo et al. (4,378,744).

With respect to claims 51 and 35, Alliston et al. discloses an apparatus comprising:

a reaction vessel (10) which includes three compartments of three fluidized beds (B, A, C) bounded by a floor (30) and two partition plates (22 and 24);

wherein the third bed (C) height is lower than the height of the second bed (A) and the second bed (A) height is lower than that of the first bed (B) (see figure 1);

at least one connecting hole (42a and 42b) in each partition plate (22 and 24) elevated immediately above the floor (30) (see figure 4), therefore in the lower  $\frac{1}{4}$  of any of the three beds; and

an air distributor (30) (col. 3, lines 4-13).

Though Alliston et al. does not disclose the size of the connecting whole or the distance of the gas injecting nozzles from the connecting whole nor any particular sizes for any portion of the device, it is held that one of ordinary skill in the art would have found it *prima facie* obvious to arrive at an optimum or workable range of the size of a connecting hole as well as the connecting whole to nozzle distance by mere routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”).

Additionally, change in size and shape is not patently distinct over the prior art absent persuasive evidence that the particular configuration of the claimed invention is significant. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

The air distributor (30) of Alliston et al. does not disclose any specific details as to openings or nozzles by which the air can flow through the distributor, including wherein the nozzles inject obliquely downward.

DeFeo et al. also teaches a fluidized bed device wherein the distribution nozzles inject gas obliquely downward (102, 156) into the bed (see figures 4 and 5) and that this design allows for higher temperatures to be reached in the bed and more accurate positioning in the bed (col. 2, lines 53-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the nozzles of DeFeo et al. for the nozzles of modified Alliston et al. since it is merely the selection of a suitable means by which to flow the fluidizing air through the distributor to the particulate bed and in order to achieve the advantages taught by DeFeo et al.

With respect to claim 34, it can be seen in figures 1 and 4 that the lower surface of the connecting holes (42a and 42b) is located above the gas injection of the air distribution plate (30).

16. Claims 36-43, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of DeFeo et al. (4,378,744), as applied to claim 51 above, and further in view of Moss (4,517,162).

With respect to claims 36-43, 47 and 48, Alliston et al., as modified above, fails to disclose specific details with regard to the connecting holes (42a and 42b).

Moss also discloses a fluidized bed reactor with partitioned fluidized beds and teaches an arrangement of connecting holes that improve the flow of particulate matter from bed to bed so that there is substantially no accumulation of particles at the opening (col. 2, lines 14-19). This arrangement comprises (as shown in figure 1 of Moss):

a lower surface portion (20, 25) of the connecting hole protrudes from both ends of the partition plate (11, 14);

Art Unit: 1764

that the upper surface of the protruding portion (20, 25) is obliquely cut; connecting hole (19, 24) and its protruding portion (20, 25) are slanted downward from the upstream side toward the downstream side; and that an angle of slant is greater than an angle of repose of the material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the connecting holes arrangement as disclosed by Moss in the modified apparatus of Alliston et al. in order to gain the flow advantages taught by Moss.

17. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of DeFeo et al. (4,378,744) as applied to claim 51 above, and further in view of Butt (EP 0 144 172 A2).

Alliston et al., as modified above, discloses the apparatus as discussed with respect to claim 51 above, but does not disclose wherein an injecting nozzle is provided in the middle of the connecting hole.

Butt teaches a similar compartmentalized fluidized bed device wherein a gas injection nozzle (52, 54) is positioned in the middle of the connecting hole of a partition (4) (see fig. 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a gas injection nozzle in the middle of the connecting hole of a partition plate of modified Alliston et al. in the manner taught by Butt in order to provide improved fluidization and movement of the fluidized bed from compartment to compartment.

Art Unit: 1764

18. Claim 45 rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of DeFeo et al. (4,378,744) in view of Butt (EP 0 144 172 A2) as applied to claim 51 above, and further in view of Voegeli (3,978,176).

The apparatus of modified Alliston et al. in view of Butt does not disclose the specific type of sparger/gas injection nozzle used.

Voegeli discloses a sparger made up of a porous material which can be used in a fluidized bed apparatus (col. 2, lines 5-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the particular sparger of Voegeli in the modified device of Alliston et al. as it is merely the selection of sparger/gas injection nozzles known to be effective in the art.

19. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alliston et al. (5,108,712) in view of DeFeo et al. (4,378,744) in view of Butt (EP 0 144 172 A2) as applied to claim 51 above, and further in view of Wietzke et al (6,029,612).

The apparatus of modified Alliston et al. in view of Butt does not disclose wherein the nozzle is obliquely bent from the upstream side toward the downstream side.

Wietzke et al. teaches a gas injection nozzle (42, 44) in the partition (41) of a fluidized bed wherein the nozzle is obliquely bent from the upstream side toward the downstream side in order to provide a solid flow seal and prevent particles from flowing into the nozzle (col. 6, lines 6-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made provide an oblique bend from the upstream side toward the downstream side of the connecting hole of Alliston et al. in order to gain the advantages of a solid flow seal as taught by Wietzkie et al.



***Response to Arguments***

20. Applicant's arguments with respect to claims 2-51 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

***Conclusion***

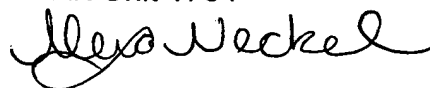
21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 6, 2006

Alexa D. Neckel  
Primary Examiner  
Art Unit 1764



ALEXA DOROSHENK NECKEL  
PRIMARY EXAMINER